

Title (en)  
Liveness detection

Title (de)  
Echtheitserkennung

Title (fr)  
Détection de l'état vivant

Publication  
**EP 2713307 B1 20180516 (EN)**

Application  
**EP 12290323 A 20120928**

Priority  
EP 12290323 A 20120928

Abstract (en)  
[origin: EP2713307A1] An image of a portion of a person's body is accessed, the image having been captured by an image capture device. Using the image, measurements of characteristics in the image are obtained, the characteristics in the image having been selected based on a statistical analysis of characteristics (i) in a plurality of first images taken directly of a person and (ii) in a plurality of second images taken of an image of a person. Based on a liveness function, a score for the image is determined using the obtained measurements of the characteristics in the image. A threshold value is accessed. The score of the image is compared to the accessed threshold value. Based on the comparison of the score of the image to the accessed threshold value, the image is determined to be have been taken by the image capture device imaging the portion of the person's body.

IPC 8 full level  
**G06K 9/00** (2006.01); **G06K 9/46** (2006.01); **G06N 20/00** (2019.01); **G06T 7/20** (2017.01); **G06T 7/77** (2017.01); **G06T 11/80** (2006.01); **H04N 5/225** (2006.01)

CPC (source: EP US)  
**G06N 20/00** (2018.12 - EP US); **G06T 7/20** (2013.01 - US); **G06T 7/77** (2016.12 - EP US); **G06T 11/80** (2013.01 - US); **G06V 40/168** (2022.01 - US); **G06V 40/173** (2022.01 - EP US); **G06V 40/45** (2022.01 - EP US); **H04N 23/00** (2023.01 - US)

Citation (examination)  
ANONYMOUS: "Support vector machine - Wikipedia, the free encyclopedia", 3 September 2012 (2012-09-03), XP055089541, Retrieved from the Internet <URL:http://en.wikipedia.org/w/index.php?title=Support\_vector\_machine&oldid=510528719> [retrieved on 20131121]

Cited by  
CN105389553A; CN108111883A; CN107729825A; CN106557723A; CN107358153A; CN111444850A; CN105243376A; CN106899660A; CN111724522A; CN113743236A; US11488419B2; US11321962B2; USD963407S

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2713307 A1 20140402; EP 2713307 B1 20180516**; US 2014093140 A1 20140403; US 2015139497 A1 20150521; US 2016335515 A1 20161117; US 8958607 B2 20150217; US 9430709 B2 20160830; US 9639769 B2 20170502

DOCDB simple family (application)  
**EP 12290323 A 20120928**; US 201213685965 A 20121127; US 201514607159 A 20150128; US 201615220142 A 20160726